

Vega Smartplus Scale Factors

The following table lists the scale factors for use with Vega SmartPlus, these values are used to translate between real Voltages and Currents and the internal values used by the options, as well as internal calibration factors used by the options. The Vega SmartPlus software uses an initialisation file to store these values in, the format of this file is given on page 2.

Module	TypeID	VoltageRangeLo	VoltageRangeHi	MaxCurrent	VoltageScaleFactor	MaxMeasuredVoltage	CurrentScaleFactor	MaxMeasuredCurrent	VprogMult	VprogOffset	RprogMult	RprogOffset
B1L	1	1.8	3.8	20	204.6	5	34.25	29.869	26214	300	52429	-41
B1H	2	3.9	5.25	20	170.5	6	34.25	29.869	17476	602	34953	392
B2	3	5	9	25	102.3	10	27.171	37.651	26214	461	52429	102
B3	4	9.1	16.2	12	52.462	19.5	57.861	17.68	23862	440	47724	105
B4	5	16.3	21.0	10	43.532	23.5	67.375	15.184	14502	674	29003	483
B5	6	21.6	30	6	30.088	34	110.3	9.275	18119	618	36237	367
C1	7	1.8	4.1	35	204.6	5	19.171	53.352	30147	300	60253	-102
C3	8	9.1	16.2	18	56.833	18	37.094	27.579	25650	477	51700	114
C4	9	16.3	21.0	14	43.532	23.5	48.081	21.277	14502	674	29003	483
C5	10	21.6	30	10	30.088	34	67.375	15.184	18119	618	36237	367
L1	11	4.2	5.25	35	170.5	6	21.293	48.045	14199	660	28399	494
D1L	12	1.8	3.8	50	204.6	5	13.606	75.188	26214	300	52429	-41
D1H	13	3.9	5.25	50	170.5	6	13.606	75.188	17476	602	34953	392
D2	14	3.8	8	45	113.667	9	15.775	64.851	30584	379	61167	-45
D3	15	8	16.0	24	56.833	18	28.03	36.496	30947	415	61895	-28
D4	16	14	21.5	18	36.536	28	37.851	27.027	17554	480	35109	237
D5	17	21	28	15	30.088	34	45.298	22.584	13493	602	26985	421
E1	18	1.8	3.5	60	249.5	4.1	11.212	91.241	31969	377	63938	-20
E2	19	3.8	8	60	113.667	9	11.212	91.241	30584	379	61167	-45
E3L	20	8	13.9	40	56.833	18	17.411	58.754	21481	416	42962	119
E3H	21	14	15	36	56.833	18	19.498	52.466	3641	757	7282	739
E4	22	14	19.9	30	36.536	28	22.813	44.843	13609	481	27619	296
E5L	23	20	24	27	30.088	34	25.35	40.355	7710	873	15420	481
E5H	24	24	28	25	30.088	34	27.621	37.037	7710	692	15420	602
F1	25	1.8	3.5	80	249.512	4.1	8.532	119.904	31969	377	63938	-50
F2	26	3.8	8	80	113.667	9	8.532	119.904	30584	379	61167	-45
C1Y	27	1.8	4.1	40	204.6	5	17.203	59.524	30147	300	60253	102

Issue:	1	2	3	4	5		
Mod:	25329	26832	28339	31530	39543		
Date:	2.12.03	26.01.05	30.3.05	11.4.06	10.07.08		
Initials:	JM	VP	KM	KM	VP		
Drawn:	Julia Morss - Manufacturing Information Systems						

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Scale.ini File format:

Each module has a TypeID programmed into a location in Eeprom, this can be read and then the scale factors can be found in this file to allow translation. The scale.ini file is included on the CD-ROM. It is a plain text file of the following format:

```
[TYPE1]
Type=B1L
MinVoltage=1.8
MaxVoltage=3.8
MaxCurrent=20
VoltageScaleFactor=204.600
MaxMeasuredVoltage=5
CurrentScaleFactor=36.451
MaxMeasuredCurrent=28.065
```

```
[TYPE2]
Type=B1H
MinVoltage=3.9
MaxVoltage=5.25
MaxCurrent=20
VoltageScaleFactor=170.500
MaxMeasuredVoltage=6
CurrentScaleFactor=36.451
MaxMeasuredCurrent=28.065
```

```
[TYPE3]
Type=B2
MinVoltage=5.0
MaxVoltage=9.0
MaxCurrent=25
VoltageScaleFactor=102.300
MaxMeasuredVoltage=10
CurrentScaleFactor=28.085
MaxMeasuredCurrent=36.425
```

Etc...

Issue:	1	2	3	4	5		
Mod:	25329	26832	28339	31530	39543		
Date:	2.12.03	26.01.05	30.3.05	11.4.06	10.07.08		
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